CLAIMS

What is claimed is:

1. A device for perfusion management, comprising:

a body portion;

at least one extensible finger coupled to said body portion;

at least one reservoir in communication with said extensible finger; and

a control circuitry coupled to said extensible finger, or said body portion.

2. The device for perfusion management according to claim 1, further comprising a device for data gathering, data processing, data storage, or data transmission.

3. The device for perfusion management according to claim 1, further comprising an imager, a pressure sensor, a temperature sensor, a chemical sensor, a gas sensor, an electrolyte sensor, a composition sensor, a concentration sensor, or a flow sensor coupled to said extensible finger.

4. The device for perfusion management according to claim 1, further comprising a pump, or a source of pressure coupled to said extensible finger.

5. The device for perfusion management according to claim 1, further comprising a motor or an actuator coupled to said extensible finger.

6. The device for perfusion management according to claim 1, further comprising a wireless data transmitter, coupled to said extensible finger or said control circuitry.

7. The device for perfusion management according to claim 1, further comprising a wireless data receiver, or a wireless data controller coupled to said extensible finger or said control circuit.

8. The device according to claim 1, wherein said at least one extensible finger is coupled to a source of a chemical, a chemical compound, a protein, a lipoprotein, a glycoprotein, a sugar, a lipid, an antigen, an antibody, a cytokine, a peptide, a neurotransmitter, a hormone, an ion, a messenger molecule, a nucleic acid, an engineered nucleic acid, a nucleic acid vector, a drug, a cell, a cell fragment, a cell organelle, a liposome, a pharmaceutical agent, a biological material, or a biological fraction internal or external to said reservoir.

9. The device according to claim 1, wherein said at least one extensible finger is coupled to a source of two or more of a chemical, a chemical compound, a protein, a lipoprotein, a glycoprotein, a sugar, a lipid, an antigen, an antibody, a cytokine, a peptide, a neurotransmitter, a hormone, an ion, a messenger molecule, a nucleic acid, an engineered nucleic acid, a nucleic acid vector, a drug, a cell, a cell fragment, a cell organelle, a liposome, a pharmaceutical agent, a biological material, or a biological fraction internal or external to said reservoir.

10. The device for perfusion management according to claim 1, further comprising an operative tool in communication with said extensible finger.

11. The device for perfusion management according to claim 10, wherein said operative tool comprises a tool positioner.

12. The device for perfusion management according to claim 10, wherein said operative tool comprises a device for ablating, or a device for degrading or liquefying a cell, a mass of cells, a tissue, or an assembly of biological materials exhibiting shear strength.

13. The device for perfusion management according to claim 10, wherein said control circuitry is operative to guide said operative tool.

14. The device for perfusion management according to claim 1, wherein said extensible finger includes a source of an electric charge or electromagnetic radiation coupled or carried by said extensible finger.

15. The device for perfusion management according to claim 1, wherein said extensible finger includes a plurality of telescoping segments.

16. The device for perfusion management according to claim 15, wherein said plurality of telescoping segments is hollow.

17. The device for perfusion management according to claim 1, wherein said extensible finger further comprises a device for fully or partially blocking or shunting a liquid flow.

18. The device for perfusion management according to claim 1, further comprising a device for evacuating a target coupled to said extensible finger.

19. The device for perfusion management according to claim 1, further comprising a device for cauterizing or sealing a cell, a mass of cells, a tissue, or an assembly of biological materials exhibiting shear strength carried by said extensible finger.

20. The device for perfusion management according to claim 1, further comprising a fluid dispenser operative to provide a fluid at a controlled rate.

21. The device for perfusion management according to claim 20, wherein said fluid dispenser is carried by said extensible finger.

22. The device for perfusion management according to claim 1, wherein said extensible finger comprises a stent.

23. The device for perfusion management according to claim 1, wherein said control circuitry is coupled to control said extensible finger.

24. The device for perfusion management according to claim 1, wherein said control circuitry is operative to guide said extensible finger.

25. The device for perfusion management according to claim 1, wherein said control circuitry comprises a processor, a feedback circuit, or a logic circuit.

26. The device for perfusion management according to claim 1, wherein said control circuitry is a processor further comprising a stored software or firmware program cooperative with said processor.

27. The device according to claim 1, wherein said device is of a size, a composition, a power dissipation level, or a shape configured for full or partial placement in vivo.

28. The device for perfusion management according to claim 1, wherein said device is configured for implantation in an animal.

29. The device for perfusion management according to claim 28, wherein said animal is human.

30. The device for perfusion management according to claim 29, wherein said device is configured for placement in a selected location in said human corresponding to at least one physiological variable to be monitored or treated.

31. The device for perfusion management according to claim 30, wherein said selected location is in a circulatory system, an aorta or a vena cava.

32. The device for perfusion management according to claim 1, wherein said device is operative to provide or monitor a treatment or a response in a patient.

33. The device for perfusion management according to claim 32, wherein said treatment comprises delivering a medicinal agent, a pharmaceutical agent, a therapeutic device or assembly to a location in said patient.

34. The device for perfusion management according to claim 1, wherein said device communicates exterior to said patient.

35. A method of fabricating a perfusion management device, comprising:
forming a cavity for storing a receivable;

coupling a flexible conduit to said cavity, the conduit being configured to extend from said cavity to a target location in an animal's body; and

coupling said flexible conduit and said cavity to a monitoring system, said monitoring system including logic or software configured for directing said receivable from said cavity to said target location.

36. The method as in claim 35, comprising the step of configuring said device for implantation in proximity to said target location.

37. The method as in claim 35, comprising the step of configuring said device for providing or monitoring a treatment or a response in a patient.

38. The method for perfusion management according to claim 35, including coupling an imager, a pressure sensor, a temperature sensor, a chemical sensor, a gas sensor, an electrolyte sensor, a flow sensor, a concentration sensor, a composition sensor, or a flow regulator to said monitoring system.

39. The method for perfusion management according to claim 35, further including coupling a pump, a motor, a vacuum, a siphon, or an evacuation device to said monitoring system.

40. The method for perfusion management according to claim 35, further including coupling an actuator, a tool positioner, an ablator, a cauterizer, or a sealer to said monitoring system.

41. The method for perfusion management according to claim 35, comprising the step of placing a source of a chemical, a chemical compound, a protein, a lipoprotein, a

glycoprotein, a sugar, a lipid, an antigen, an antibody, a cytokine, a peptide, a neurotransmitter, a hormone, an ion, a messenger molecule, a nucleic acid, an engineered nucleic acid, a nucleic acid vector, a drug, a cell, a cell fragment, a cell organelle, a liposome, a pharmaceutical agent, a biological material, or a biological fraction internal or external to said cavity.

42. The method for perfusion management according to claim 35, comprising the step of placing a source of two or more of a chemical, a chemical compound, a protein, a lipoprotein, a glycoprotein, a sugar, a lipid, an antigen, an antibody, a cytokine, a peptide, a neurotransmitter, a hormone, an ion, a messenger molecule, a nucleic acid, an engineered nucleic acid, a nucleic acid vector, a drug, a cell, a cell fragment, a cell organelle, a liposome, a pharmaceutical agent, a biological material, or a biological fraction internal or external to said cavity.

43. The method for perfusion management according to claim 35, comprising the step of coupling or carrying a source of an electrical charge or electromagnetic radiation to said flexible conduit.

44. The method for perfusion management according to claim 35, wherein said monitoring system comprises a processor, a feedback circuit, or a logic circuit.

45. The method for perfusion management according to claim 35, wherein said monitoring system is a processor further comprising a stored software program cooperative with said processor.

46. The method for perfusion management according to claim 35, wherein said monitoring system communicates wirelessly.

47. A method for perfusion management, comprising:

storing a receivable in an implanted storage medium;

extending a flexible conduit between said storage medium and a target location; and

transmitting said receivable from said storage medium to said target location.

48. The method for perfusion management according to claim 47, comprising the step of gathering, processing, storing or transmitting data.

49. The method for perfusion management according to claim 47, further comprising the step of imaging, or detecting a level of pressure, temperature, chemical, gas, electrolyte, composition, concentration, or flow.

50. The method for perfusion management according to claim 47, comprising the step of delivering chemicals, chemical compounds, proteins, lipoproteins, glycoproteins, sugars, lipids, antigens, antibodies, cytokines, peptides, neurotransmitters, hormones, ions, messenger molecules, nucleic acids, engineered nucleic acids, nucleic acid vectors, drugs, cells, cell fragments, cell organelles, liposomes, pharmaceutical agents, biological materials, or biological fractions internal or external to said storage medium.

51. The method for perfusion management according to claim 47, comprising the step of performing one or more operations or actions.

52. The method for perfusion management according to claim 47, comprising the step of positioning tools.

53. The method for perfusion management according to claim 47, comprising the step of fully or partially blocking or shunting a liquid flow.

54. The method for perfusion management according to claim 47, comprising the step of ablating, degrading, or liquefying a cell, a mass of cells, a tissue, or an assembly of biological materials exhibiting shear strength.

55. The method for perfusion management according to claim 47, comprising the step of capturing a cell, a tissue, a fluid, a gel, a sample, a colloid, and emulsion, a debris, a contaminant, or a biological material.

56. The method for perfusion management according to claim 47, comprising the step of sampling a cell, a mass of cells, a tissue, or an assembly of biological materials exhibiting shear strength.

57. The method for perfusion management according to claim 47, comprising the step of cauterizing or sealing a cell, a mass of cells, a tissue, or an assembly of biological materials exhibiting shear strength.

58. The method for perfusion management according to claim 47, comprising the step of dispensing a fluid at a controlled rate.

59. The method for perfusion management according to claim 47, comprising the step of controlling or guiding said extensible finger.

60. The method for perfusion management according to claim 47, further comprising the step of placing said device fully or partially in vivo.

61. The method for perfusion management according to claim 47, comprising configuring said device for implantation in an animal.

62. The method for perfusion management according to claim 61, wherein said animal is human.

63. The method for perfusion management according to claim 62, further comprising configuring said device for placement in a selected location in said human.

64. The method for perfusion management according to claim 63, wherein said selected location is in a circulatory system, an aorta or in a vena cava.

65. The method for perfusion management according to claim 47, comprising the step of releasing an electric current or an electromagnetic radiation in proximity to a cell, a tissue, or an assembly of biological materials exhibiting shear strength.